FOR MYSORE STATE

50.

H. E (1954.) Department.

MS SERIES.

G.O. MS NO. 626 Health,

Dated 16. 3. 54.

closed

18/3/54

[Despatch Abstract.]

Water supply. Mangalore Water supply scheme - change in the per capita supply from 20 to 15 gallons. Ordered

PUBLIC WORKS DEPARTMENT.

From Sri N. PADMANABHA AYYAR,
B.A.,B.E., M.I.E.(Ind.),
I.S.E.,
Chief Engineer,PWD.(General and Buildings),Chepauk,Madras.5

To
The Secretary to Government,
Health, Education & Local Administration Department,
Fort St. George, Madras-9.

LETTER No. 709. PH/54-1, dated 27th February,1954.

ASSISTANT SECRETARY'S OFFICE
1 MAR 1954
HEALTH, EDN. & LOCAL ADMN. DEPT.

Sub:-WATER SUPPLY SCHEME - Mangalore Municipality - Netravathi source - Change in the per capita supply from 20 to 15 gallons - Proposals.

I enclose a copy of Sanitary Engineer's letter No. 24767.W2/53-2, dated 9-2-1954 proposing a 15 gallons per capita rate of water supply to Mangalore instead of 20 gallons allowed in the Scheme administratively approved by Government in G. O. Ms. No.1304. H., dated 7-4-1953. I agree with his proposal and recommend the reduction to 15 gallons per capita supply as there is a savings of nearly Rs.14.30 lakhs which is substantial considering the present financial stringency. The Sanitary Engineer reports that the matter was also discussed with the Minister for Health, when he was called for a discussion on 8th February,1954.

2. As already pointed out in the Sanitary Engineer's special Note referred to in his present letter and forwarded to Government, with my letter No.6462.PH/53-12, dated 6-2-54, the 15 gallons per capita rate of supply recommended in this case could be adopted as a general policy for some years to come in respect of water supply schemes of all Municipalities except however, in a few cases where the Municipalities are in comparatively affluent circumstances and where the availability of water at the source is abundant.

3: I request that early orders of Government may be obtained so that the further progress on the preparation of plans and estimates for this Scheme may not be impeded.

27/2/54.

for Chief Engineer,P.W.D.(Gl.&Bldgs),

Encl:
1 Copy of Sany.Engr's letter dated 9-2-54.
Gk.27/2.

KW
1/3/54

SPECIAL.

SANITARY ENGINEERING BRANCH (P.W.D).

From
Sri C. Rajagopalan, B.E., M.I.E.,
Sanitary Engineer,
Chepauk, Madras.

To
The Chief Engineer, P.W.D.,
(General & Buildings),
Chepauk, Madras.

No. 24767-W2/53-2 dated 9th February, 1954.

Sir,

Sub: Water Supply Scheme - Mangalore Municipality - Netravathi Source - proposed change in the per capita rate of supply - orders requested.

Ref: My special note accompanying my letter No. 24767-W2/53-1 dated 8-1-1954.

*****

In view of the financial stringency at present and the difficulties in the way of financing costly Municipal Water Supply Schemes under prevailing conditions, I have reexamined the details of the Mangalore Water Supply Scheme as sanctioned in order to see whether we could effect any worthwhile economy in the total cost of the scheme without at the same time sacrificing any essential utility value in the scheme as envisaged. About 20,000' of 20" diameter 'C' Class spun iron pipes only have already been secured for the scheme. The design of the other components of the scheme is in progress and we are yet to make arrangements for procuring the pipe quantities required for this scheme. It is not therefore too late now to incorporate any changes in the scope of the design, should they be considered necessary in the interest of economy and expeditious execution of the scheme. I would explain the position as under:--

(i) In para 19 of the report on the investigation of the scheme submitted by the Sanitary Engineer in 1946 it is stated:

> "The Municipal Council, Mangalore in its resolution No. 66, dated 11th June 1945, decided to have a fifteen gallons scheme for the whole town. Assuming 16 hours pumping as usual the source should be capable of yielding 2,705 gallons per minute to serve the ultimate population in 1981. By increasing the hours of pumping upto 24, it may be possible to increase the per capita supply to 22½ gallons when the ultimate population is realised. This rate would compare favourably with the figure of 25 to 30 gallons recommended by the Dhore Committee".

(ii) Again in para 30 of the Investigation Report while dealing with the approximate cost of the scheme it is stated:

> "If the rate of supply per head per day is to be increased as recommended in the Dhore Committee report (vide also Chief Engineer's letter to Government recommending 25 to 30 gallons in large urban units) by pumping for 24 hours the capital cost will be Rs. 49,00,000/- and the maintenance charge of Rs. 65,000/- and Rs. 82,000/- respectively for the ultimate population in 1966 and 1981 assuming 24 hours pumping instead of the usual 16 hours".

(iii) But while forwarding the investigation report to the Government with his remarks, the Chief Engineer wrote as under:

> "(1) Rate of Water Supply: In 1945 the Mangalore Municipality resolved to have a 15 gallons scheme. The proposals accordingly provide for a 15 gallons scheme with 16 hours pumping with the idea that by increasing the pumping hours

to 24 the rate of supply could be increased to 22½ gallons per head per day when such increase is found desirable. For an infiltration source, 24 hours pumping should be avoided as sufficient time for recouperation should be allowed. In this case the number of hours of pumping may be restricted to 20 hours allowing 4 hours time for recouperation. If the recommendations of the Dhore's Committee report are to be followed, a rate of supply of 25 gallons per head per day atleast should be provided but this being an infiltration source with limitations of yield it is enough if the scheme is designed for a 20 gallons supply with 20 hours pumping to serve an ultimate population of 1,75,000 for Mangalore Municipality. For villages en route a supply of 5 gallons per capita as assumed in the report may be adopted being rural parts".

(iv) The Municipal Council, Mangalore, agreed in the recommendations of the Chief Engineer and accordingly Government ordered the preparation of plans and estimates for the scheme based on a 20 gallon supply.

(v) Subsequently, when the Gurpur source was abandoned in favour of the Netravathi surface source, the scope of the scheme as originally sanctioned was not sought to be altered at that stage, and details for the scheme with Netravathi as the source were proceeded with on the same basis on which the scheme with the Gurpur source had been sanctioned.

2. I enclose a comparative statement showing the cost of the Water Supply Scheme for Mangalore worked out on the basis of a 20, 15 and 10 gallon per capita rate of supply. The figures of cost against the several items of work as shown are comparable to the figures already provided for in the approximate estimate of Rs. 32.85 lakhs for which administrative approval has been accorded by the Government in respect of the 20 gallon scheme.

3. It will be seen that by adopting a 15 gallon scheme at the present stage we shall be able to save about Rs. 14.00 lakhs from what it would cost us if we were to provide a 20 gallon scheme for the town. I have also indicated the cost of a 10 gallon scheme in order to assess the relative savings possible by cutting down the per capita supply. It may not however, be expedient to consider a 10 gallon scheme for Mangalore at the present stage.

4. I consider that having regard to all the special circumstances relevant to the issue, the provision of a 15 gallon scheme for Mangalore should be sufficient and satisfactory from all stand points. The Town has abundant and normal monsoon rains and for many months in the year the supply available from local wells is plenty and dependable. The Municipal population may not be in need of a 20 gallon supply all the year round as a normal routine. As decided by the Municipal Council, originally, there should be no objection locally to change the scope of the scheme at the present stage from a 20 to 15 gallon scheme, if thereby a substantial saving of about Rs. 14 lakhs is going to result and to that extent the execution of the scheme could also be speeded up. The partial drainage scheme for Mangalore which has already been investigated is also to be taken up for execution under the first Five Year Plan and funds will have to be found for executing that scheme side by side with the water supply scheme for the town. Any saving in the cost of the water supply scheme will mean so much relief found for financing the drainage scheme.

5. As however, the issue is a major one, I request you to address the Government in the matter and let me have final orders as soon as possible.

for Sanitary Engineer.

CS/9-2.

Encl:- 1 statement

	Popln. 1,75,000 Supply 20 G.P.C.D. + Enroute villages 2.0 lakhs + Industrial 3.0 lakhs T.D.Supply 40.0 .do. gallons.	Popln. 1,75,000 Supply 15 G.P.C.D.+ Enroute villages 2.0 lakhs + Industrial 2.25 lakhs T.D.Supply 30.5 lakhs gallons.	Population 1,20,000 Supply 10 G.P.C.D. Enroute villages + 1.5 lakhs Industrial 1.5 lakhs T.D. Supply 15.0 " gallons.	REMARKS
(1)	(2)	(3)	(4)	(5)
1. Land Acquisition for Headworks.	15,000	15,000	15,000	
.do. Treatment Works.	10,000	10,000	10,000	
.do. Pumping Main.	5,000	20,000	20,000	As per the sanctioned estimate for the Pumping Main.
2. Raw water intake well - Construction with draw off arrangements.	30,000			
3. Suction well cum pump house for raw water lifts.	15,000	58,000	40,000	
4. Suction pipe line between intake well and suction well.	15,000			
5. Supply, delivery and erection of low-lift pumps in duplicate with necessary accessories.	25,000 (2 sets of 45 H.P)	50,000 (2 sets of 90 H.P)	25,000 (2 sets of 41 H.P)	
6. Pipe connections required for low-lift pumping plant.	10,000	20,000	10,000	
7. Construction of earthern basin for presettlement for 24 hours capacity.	20,000	18,000	12,000	
8. Construction of pumphouse for high lift pumps.	25,000	22,000	20,000	
9. Supply, delivery and erection of high lift pumps with necessary accessories in duplicate.	2,00,000 (2 sets of 350 HP each)	2,00,000 (2 sets of 340 HP)	120,000 (2 sets of 130 H.P)	
10. Pipe connections for high lift pumps.	1 0,000	10,000	8,000	
	3,80,000	4,23,000	2,80,000	

P.T.O.

	(2)	(3)	(4)	(5)
B.F.	3,80,000	4,23,000	2,80,000	
11. Stores and laboratory at Headworks.	10,000	10,000	10,000	
12. Pumping main - supply of pipes, laying and jointing.	34,66,000 20" size	27,90,000 20" & 18" size.	24,15,000 20" & 15" size.	
13. Filtration plant in the town, chemical house, flocculation, coagulation tanks etc. complete.	10,00,000	8,00,000	5,00,000	
14. Service Reservoir cum clear water reservoir.	3,00,000	2,25,000	1,10,000	
15. Distribution system.	13,00,000	11,00,000	9,50,000	
16. Supply, delivery and erection of booster pumping plants.	15,000	15,000	10,000	
17. Venturi Meter, Chloronome plant and water testing equipments.	15,000	12,000	10,000	
18. Telephone connections from headworks, reservoirs etc.	20,000	20,000	20,000	
19.(a) Quarters for the staff at Headquarters.	15,000	15,000	15,000	
(b) Watchman's quarters at headworks and filter works.	5,000	5,000	5,000	
20. Purchase of Lorry, Jeep and Lifting machinery etc.	30,000	30,000	30,000	
	65,56,000 + 25,000 *			
	65,81,000	54,45,000	43,55,000	
21. Unforseen items at 4%.	2,63,000	2,17,800	1,74,200	
22. Contingencies at 5%.	3,29,000	2,72,250	2,17,750	
	71,73,000	59,35,050	47,46,950	
23. Centage charges at 15½%	11,12,000	9,19,933	7,35,777	
Grand Total ..	82.85 Lakhs.	68.55 Lakhs.	54.83 Lakhs.	

* .25,000/- provided for the construction of high lift pumphouse as per item 10(b) of appendix IV, of the estimate submitted by Chief Engineer to Government is a repetition.

(True copy)

K. A. Gangadharan
Superintendent. 9/2/54.

Pa.9/2. 9/2/54

H.E.L.A. (H.VI) Dept.

Dated 16/3/54

Sub:- Water Supply - Mangalore Water Supply Scheme - Change in the per-capita supply from 20 to 15 gallons - Orders passed.

Read again:- G.O.No. 1304, Health, dt.7.4.53.

From the C.E., P.W.D.,(Gl.& Bldgs) Letter No. 709 PH/54-1,dt. 27-2-1954.

The Water-Supply Scheme for Mangalore ~~Water Supply~~ sanctioned in G.O.No.1304, Health dt. 7-4-53, has provided for a supply of 20 gallons per capita. In view of the ~~financial stringency at present and in view~~ the difficulties in the way of financing costly municipal Water Supply schemes, the Sany. Engr. has re-examined the details of the above scheme as sanctioned, in order to see whether any worthwhile economy can be made in the total cost of the scheme without at the same time sacrificing any essential utility value of the scheme as envisaged and, as a result thereof, he has recommended that the percapita supply may be 15 gallons as against the original proposal for 20 gallons per capita. The adoption of the above rate of 15 gallons will yield a saving in capital cost to the tune of Rs.14.30 lakhs in the re original estimate of the scheme. In the above circumstances, the Govt. approve the proposal of the Sany. Engr. to adopt the rate of 15 gallons per capita supply for the water supply Scheme for Mangalore.

2. The Mangalore Municipal Council will be given a grant of Rs 38.94 lakhs only

as against the originally fixed amount of Rs. 53.24 lakhs towards the cost of the Scheme.

To
The C.E., P.W.D. (G.I. & Bldgs) with a copy for the Sany.Engr.
The Commr., ~~M.C.~~ Mangalore Mpty. thro' the C.M.C.
The A.G.,Madras(thro'Fin.
" (By name)
The Exmr. of L.F.A/cs.
The Fin.Dept.

2 S/cs.

ABSTRACT.

Water Supply - Bangalore Water Supply Scheme - Change in the per-capita Supply from 20 to 15 gallons - Ordered.

Health, Education & Local Administration Department.

G.O.Ms.No.680 dated: 10th March, 1954.

Read the following:-

G.O.Rt.No.1304, Health, dated 7.4.53.
From the Chief Engineer, Public Works Department (General & Buildings), letter No.709 PW/54-1, dated 27-2-54.

The Water Supply Scheme for Bangalore sanctioned in G.O.No.1304 Health dated 7-4-53 has provided for a supply of 20 gallons per capita. In view of the difficulties in the way of financing costly municipal water supply schemes, the Sanitary Engineer has re-examined the details of the above scheme as sanctioned, in order to see whether any reasonable economy can be made in the total cost of the scheme without at the same time sacrificing any essential utility value of the scheme as envisaged, and as a result thereof, he has recommended that the per-capita supply may be 15 gallons as against the original proposal for 20 gallons per capita. The adoption of the above rate of 15 gallons will yield a saving in capital cost to the tune of Rs.14.50 lakhs in the original estimate of the scheme. In the above circumstances, the Government approve the proposal of the Sanitary Engineer to adopt the rate of 15 gallons per capita supply for the water supply scheme for Bangalore.

2. The Mangalore Municipal Council willbe given a grant of Rs.38.94 lakhs only as against the originally fixed amount of Rs.53.24 lakhs towards the cost of the scheme.

(By Order of the Governor of Madras)

S.A. Subban,
Deputy Secretary to Government.

To

The Chief Engineer, Public Works Department. (General & Buildings) (with a copy for the Sanitary Engineer).
The Commissioner, Mangalore Municipality, thro' the Chairman Municipal Council.
The Accountant-General, Madras. (Through Finance).
The Accountant-General. (by name).
The Examiner of Local Fund Accounts.
The Finance Department.

/True Copy/ Forwarded / By Order

CP/13.3. SUPERINTENDENT.

Ord 2113 of 52. Subj: Water supply to Mangalore Water supply Scheme - change in the per capita supply from 20 to 15 gallons.

From the G.E., PWD (Sanitary), No 709 PH. 52-1, dt 27.2.52

In pursuance of Govt Order No. (V) 4th April 1952 accorded their administrative approval to an approximate estimate of Rs 82.85 lakhs for the revised scheme of water supply to Mangalore. The cost of the scheme was ordered to be financed as follows:-

	Rs
Municipal resources	4.11 lakhs
Govt grant	53.24 lakhs
Loan to be taken by M.C.	25.50 lakhs

2. The Sanitary Engr. is now attending to the preliminaries for starting the execution of the scheme. The Superintending Engr. has in view of the financial stringency already pointed out and the difficulties in the way of financing costly municipal Water supply Schemes, requested the Sanitary Engineer to re-examine the details of Mangalore Water supply Scheme with a view to see whether any worthwhile economy can be made in the total cost of the scheme without affecting the normal requirements

any essential ability value in the schemes as envisaged when proposed. The scheme was originally approved to provide for a supply of 20 gallons per head capita capacity. The Sanitary Engineer has now proposed that the per capita supply may be 15 gallons, as the reduction will yield savings in capital cost to the tune of £1m. 3.0 lakhs in the original estimate of the scheme. The Sanitary Engineer has fully explained the reasons for this change in his letter at pp3-5 of ... 3 The Co recommends the proposal of the Sanitary Engineer, in view of the fact that the Sanitary Engineer has proposed to adopt the 15 gallons basis for all future schemes. It is also reported that the Sanitary Engineer had a discussion on this subject with the Minister for Health. The question of adopting the 15 gallons basis for all schemes is being examined by the Ministry in the light of the revision of method of estimation in the schemes.

4 The Engineering aspects of the recommendation of the Sanitary Engineer, the proposal for adopting a 15 gallons per capita supply for the Mangalam H S Scheme may be accepted, and the Co may be authorised accordingly so that the

further progress on the scheme may not be impeded.

5 As there will be an annual saving of Rs. 14.30 lakhs if the proposal, ~~the Mongolore~~ it will be enough if a grant of Rs 38.94 lakhs (as against the originally fixed amount of Rs 53.24 lakhs) is given by the Govt. towards the execution of this scheme.

6 Fin may see for remarks if any prior to circulation.

K
6.3.54

(In this connection, it is submitted that orders approving of a similar reduction recently in Co. No. 381, Hoshiarpur, 9213/2/54 in respect of the Mayapuri WS Scheme, reducing the originally fixed 25 gallons to 15 gallons per head)

6/3/54

14
5/3/54

S/S
9/3/54

Finance (Exp A)

Chandra 5/3/54
9/3/54
HE+LA Deptt
No. 21130 HW/541
9/3/54

The note from pl. above may be forwarded
2/ This dept may agree to A above

10/3/54

10.3.54
10/3/54

DEPUTY SECRETARY TO GOVERNMENT
18520
9-MAR 1954
FINANCE DEPARTMENT

Finance 18522/Exp A
10-3-54

HEALTH
SECRETARY TO GOVT.
24515
10 MAR 1954
& LOCAL ADMN. DEPTT.

In April 1953, the Govt. accorded their administrative approval to an approximate estimate of Rs. 82.85 lakhs for the revised scheme of Water Supply to Mangalore. The cost of the scheme was ordered to be financed as follows:

	Rs.
Municipal Reserves	4.11 lakhs
Govt. grant	53.24 lakhs
Loan to be taken by M.C.C.	25.50 lakhs

The above ~~estimate~~ scheme provides for a supply of 20 gallons per capita.

The Sany. Engr. and the C.E. have proposed that the 15 gallons basis may be adopted for future schemes of water supply, in view of the financial stringency at present and in view of the difficulties in the way of financing costly Municipal Water Supply Schemes. In this connection, the Sany. Engr. has re-examined the details of Mangalore Water Supply Scheme as sanctioned in order to see whether any worthwhile economy can be made in the total cost of the scheme without at the same time sacrificing any essential utility of the scheme as envisaged. He has proposed that the percapita supply may be 15 gallons as against the original proposal for 20 gallons, as the reduction will yield a saving in the capital cost of the original scheme to the tune of Rs. 14.30 lakhs. The C.E. agrees with the above proposal of the S.E. It is proposed to accept the above recommendations of the Sany.Engr. and the C.E. The adoption of the above proposal gives a saving of Rs. 14.30 lakhs as the total grant payable will be reduced to Rs 38.94 lakhs as against the originally fixed amount of Rs. 53.24 lakhs. Finance Dept. agree to the proposal. ~~A draft order is submitted for approval. It may be circulated to H.(H), H.(L.A.) and F.(F.&Es)~~

It may be recollected that a similar reduction from 25 gallons per capita supply to 15 gallons per capita was

21130

(A)

was recently ordered in the case of the Palayamkottai Water-Supply Scheme - vide G.O.No. 361, Health, dated 13.2.1954.

The Supdg. Engr. has made a general proposal that in the case of all municipal schemes, the per-capita supply of 15 gallons may ordinarily be adopted in future, as this will reduce the capital costs to a great extent. This is separately under consideration.

The draft order below may be circulated to M(H), M(L.A.) and M(F&E) for approval. May issue

11/3/54 12/3/54

S.A. Sabhan
12.3.54

SECRETARY TO GOVERNMENT
16 MAR 1954
MUNL. ADMN. & LOCAL ADMN. DEPT.

M(A) 12/3

M(L-A.) 13.3.54.

M(F&E.) 15.3.54